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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,469	02/05/2004	Hideki Kabune	01-547	2958

23400 7590 07/12/2006

POSZ LAW GROUP, PLC
12040 SOUTH LAKES DRIVE
SUITE 101
RESTON, VA 20191

EXAMINER

RIAD, AMINE

ART UNIT	PAPER NUMBER
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2113

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/771,469

Applicant(s)

KABUNE ET AL.

Examiner

Amine Riad

Art Unit

2113

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 05 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-15 is/are rejected.
- 7) ☐ Claim(s) 7 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 02 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) *AR*
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) *AR*
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Detailed Action

Claims 1-15 have been presented for examination.

Claims 1-6 and 9-15 have been rejected.

Claims 7 and 8 have been objected to.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6,9-15 are rejected under 35 U.S.C. 102(e) as being anticipated by
Gabara Patent Application Publication 2003/0043748.

In regard to claims 1 and 12,

Gabara discloses an electronic control unit comprising:

- A microcomputer; (Figure 1; Item 104) [Examiner considers item 104 FSM as microcomputer]
- A first internal timer and a second internal timer, (Figure 1; item 102) & (Page 2; Paragraph 23; “the DLL 102 also generates a divided by two clock signals”) [because timer 102 includes a second clock to time captures inputs, Examiner considers it as second timer]

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- The microcomputer includes a first input capture function for capturing a time of the first internal timer at which an edge of a square wave input signal is detected (Figure 1; Item 112-1 & 112-2) [Gabara discloses capturing data, Examiner considers time as data]
- The microcomputer further includes a second input capture function for capturing a time of the second internal timer at which the edge of the square wave input signal is detected (Figure 1; item 112-3 & 112-4) [Gabara discloses capturing data, Examiner considers time as data], and the microcomputer diagnoses at least one of the first and the second capturing functions by performing comparison between the time of the first internal timer and the time of the second internal timer. (Page 1; Paragraph 7; “ The comparison circuit is configured to compare output signals generated by the first and second data capture elements, and supplies a result of the comparison back to the controller”)

In regard to claims 2, 9 and 13,

Gabara discloses the electronic control unit according to claim 1, wherein the first internal timer and the second internal timer are configured in one timer. (Figure 1; item 102) [Both clock timers are within the same item 102]

In regard to claims 3, 10 and 14;

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Gabara discloses the electronic control unit according to claim 1, wherein the first internal timer and the second internal timer are independently configured. (Item 102; DDL 102 has two timers ck and $ck/2$)

In regard to claims 4, 11 and 15,

Gabara discloses the electronic control unit according to claim 1, wherein: the control of the actuator is disabled when one of the input capture function is determined as abnormal; the actuator is saved in a safe position; and the abnormal input capture function is reported. (Page 1; Paragraph 7; "The controller repeats the selection of particular test data and monitors corresponding comparison results until set-up and hold –times or other clocking characteristics of the first data capture element are determined to a desired level elements") [Examiner considers that When Gabara disclose repeat Gabara saves and reports before another test is submitted which matches with claim 4]

In regard to claim 5,

Gabara discloses an electronic control unit comprising:

- A microcomputer for controlling an actuator; Figure 1; Item 104) [Examiner considers item 104 FSM as microcomputer]
- A first internal timer and a second internal timer; (Figure 1; item 102) & (Page 2; Paragraph 23; "the DLL 102 also generates a divided by two clock signals")
- A switching means, (Page 2; Paragraph 27; "the data capture circuit 100 has two modes of operation, a first or regular (R) mode, and second or self test mode ")

- Wherein the microcomputer includes a first input capture function for capturing a time of the first internal timer at which an edge of each of square wave input signals is detected, the microcomputer performs calculation for the control of the actuator based on the time of the first internal timer, (Figure 1; Item 112-1 & 112-2) [Gabara discloses capturing data, Examiner considers time as data]
- The switching means selects the square wave input signals in orderly sequence for capturing, (Page 2 & 3; Paragraph 28 and 29)
- The microcomputer further includes a second input capture function for capturing a time of the second internal timer at which the edge of the selected square wave input signal is detected, (Figure 1; item 112-3 & 112-4) [Gabara discloses capturing data, Examiner considers time as data]
- The microcomputer diagnoses at least one of the first and the second capturing functions by performing comparison between the time of the first internal timer and the time of the second internal timer. (Page 1; Paragraph 7; "The comparison circuit is configured to compare output signals generated by the first and second data capture elements, and supplies a result of the comparison back to the controller")

In regard to claim 6,

Gabara discloses the electronic control unit according to claim 5, wherein the switching means is provided outside the microcomputer. (Figure; items 104 and 102) [It is clear that the switching is done at 102 not at 104 considered as the microcomputer]

Allowable Subject Matter

Claims 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's invention. U.S. Patent 5,113,504 pertains to controlling an actuator, but lacks the data capture. See PTO 892.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amine Riad whose telephone number is 571-272-8185. The examiner can normally be reached on 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel, can be reached on 571-272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AR
Amine Riad
Patent Examiner
6/30/2006


ROBERT M. BEAUREGARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2113